We claim:

1. A process for the catalytic hydrogenation of carboxylic acids or anhydrides or esters thereof to alcohols on heterogeneous catalysts which comprise or consist of hydrogenating elements from groups 6, 7, 8, 9, 10 and 11 and, where appropriate, from groups 2, 14 and 15 of the Periodic Table of the Elements, in the liquid phase at from 100 to 300°C and from 10 to 300 bar, which comprises adding from 1 to 3000 ppm, based on the liquid hydrogenation feed, of a basic alkali metal compound or alkaline earth metal compound selected from the group consisting of hydroxides, carbonates, carboxylates or alkoxides to the hydrogenation reaction mixture.

2. A process as claimed in claim 1, wherein the basic alkali metal compounds used are basic sodium or potassium compounds.

3. A process as claimed in claim 1, which comprises adding the basic alkali metal compound or alkaline earth metal compound in amounts of from 5 to 600 ppm, based on the liquid hydrogenation feed.

4. A process as claimed in claim 1, which comprises hydrogenating dicarboxylic acids having from 4 to 6 carbon atoms or anhydrides or esters thereof to the corresponding diols.

5. A process as claimed in claim 1, wherein the hydrogenation hydrogen and/or the hydrogenation feed comprise halogen compounds.

6. A process as claimed in claim 1, which comprises using a hydrogenation catalyst which comprises at least one of the elements copper, manganese, chromium, palladium, platinum, cobalt or nickel.

7. A process as claimed in claim 1, wherein the hydrogenation catalyst comprises or consists of at least one of the elements copper, cobalt, palladium, platinum or rhenium.

8. A process as claimed in claim 1, which comprises hydrogenating esters in the presence of catalysts which comprise or consist of copper.

9. A process as claimed in claim 1, which comprises hydrogenating esters of dicarboxylic acids having from 4 to 6 carbon atoms on copper catalysts with addition of from 5 to 600 ppm of basic sodium or potassium compounds to the corresponding diols.